Safetygram

NCI-Frederick

ISM-154 GENERAL JUNE 2004

EYE SAFETY

Prevent Blindness America estimates there are about 250,000 work related eye injuries each year – about 5% of those are characterized as severe eye injuries[1]. NCI-Frederick employees involved in laboratory, maintenance, or animal handling activities may be exposed to the risk of eye injury from flying objects, splashes of liquids, electromagnetic radiation, or heat.

Operations such as grinding, sawing, hammering, chiseling, welding, overhead work, and even the use of hand tools may generate flying objects and particles, which can injure your eyes. Chemical liquids and vapors and harmful electromagnetic radiation can cause painful burns to unprotected eyes. Splashes of biological materials may cause irritation and can provide a route of entry for an infectious agent. Fortunately, you can protect yourself by wearing the proper type of eye protection.

SAFETY GLASSES: Standard safety glasses look very much like normal glasses but are designed to protect you from flying objects. Safety glasses have impact-resistant lenses and frames that are far stronger than those of regular eyeglasses. They should be equipped with **side shields** to protect your eyes from projectiles entering from the side. Safety glasses are available in prescription form if you need corrective lenses. Contact lenses offer no protection and in some circumstances may aggravate eye injury.

SPLASH GOGGLES: Splash goggles provide limited impact resistance. They protect your eyes from liquid splashes. Splash goggles may have direct or indirect ventilation. Indirect ventilation provides better protection if you are exposed to splash hazards. Splash goggles may be worn over safety glasses or prescription lenses.

FACE SHIELDS: Face shields protect the face (and sometimes the head and neck) from splashes, heat, and ultraviolet radiation. OSHA requires that safety glasses or splash goggles be worn when wearing a face shield.

FILTER LENSES AND PLATES: Eyewear and face shields designed for protection against laser or ultraviolet (UV) light should be worn when working around equipment which emits such radiation. Transilluminators, germicidal bulbs (such as those in biological safety cabinets and animal facility airlocks), welding, cutting, and brazing operations are possible sources of UV radiation.

[1] L.D. Pizzarello, Opthamology Clinics of North America, 12 (3), September 1999.

EYEWASH STATIONS: Know the location of eyewash stations and how to use them. Immediately flushing the affected area after a chemical or biological splash is the most critical step in preventing permanent injury. If a chemical or biological agent is splashed into your eyes, go to the nearest eyewash station immediately. If no eyewash station is available, use any low-pressure clean water source. Flush your eyes for at least 15 minutes, then seek medical attention. For other types of eye injuries, seek medical attention at once. Occupational Health Services is available in Building 426 during regular working hours for prompt medical treatment and assistance. Call Protective Services (x1091) for assistance at other times.

Be sure to flush your eyewash station weekly to assure a clean, even flow of water for emergencies. Tags are available from EHS.

PHYSICAL BARRIERS: These include a variety of protective devices. To avoid injuries from flying glass, use plastic or metal mesh cages or sleeves to surround glassware used under pressure or vacuum. Impact-resistant safety shields can provide protection from flying objects and splashes. Even your fume hood sash can provide a physical barrier between you and your work.

If you have any questions regarding eye safety or need safety glasses, please contact EHS at x1451.